RAW SEQUENCE LISTING
PATENT APPLICATION *US/09/474,980*
(First 5 Pages Attached)

INPUT SET: S35372.raw

#5

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SEQUENCE LISTING

(1) GENERAL INFORMATION:

(i) APPLICANT: JOHNSON, EUGENE M
MILBRANDT, JEFFREY D
KOTZBAUER, PAUL T
LAMPE, PATRICIA A
KLEIN, ROBERT
DESAUVAGE, FRED

(ii) TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTOR

(iii) NUMBER OF SEQUENCES: 239

(iv) CORRESPONDENCE ADDRESS:
(A) ADDRESSEE: HOWELL & HAFERKAMP, L.C.
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(C) CITY: ST. LOUIS
(D) STATE: MO
(E) COUNTRY: USA
(F) ZIP: 63105

(v) COMPUTER READABLE FORM:
(A) MEDIUM TYPE: Floppy disk
(B) COMPUTER: IBM PC compatible
(C) OPERATING SYSTEM: PC-DOS/MS-DOS
(D) SOFTWARE: PatentIn Release #1.0, Version #1.30

(vi) CURRENT APPLICATION DATA:
(A) APPLICATION NUMBER:US/09/474,980
(B) FILING DATE:
(C) CLASSIFICATION:

(vii) PRIOR APPLICATION DATA:
(A) APPLICATION NUMBER: 08/931,858
(B) FILING DATE:

(viii) ATTORNEY/AGENT INFORMATION:
(A) NAME: HOLLAND, DONALD R.
(B) REGISTRATION NUMBER: 35,197
(C) REFERENCE/DOCKET NUMBER: 971486

(ix) TELECOMMUNICATION INFORMATION:
(A) TELEPHONE: 314-727-5188
(B) TELEFAX: 314-727-6092

(2) INFORMATION FOR SEQ ID NO:1:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 102 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

```
Ala Arg Leu Gly Ala Arg Pro Cys Gly Leu Arg Glu Leu Glu Val Arg
1               5                  10                  15

Val Ser Glu Leu Gly Leu Gly Tyr Ala Ser Asp Glu Thr Val Leu Phe
            20                  25                  30

Arg Tyr Cys Ala Gly Ala Cys Glu Ala Ala Ala Arg Val Tyr Asp Leu
        35                  40                  45

Gly Leu Arg Arg Leu Arg Gln Arg Arg Arg Leu Arg Arg Glu Arg Val
    50                  55                  60

Arg Ala Gln Pro Cys Cys Arg Pro Thr Ala Tyr Glu Asp Glu Val Ser
65                  70                  75                  80

Phe Leu Asp Ala His Ser Arg Tyr His Thr Val His Glu Leu Ser Ala
                85                  90                  95

Arg Glu Cys Ala Cys Val
            100
```

(2) INFORMATION FOR SEQ ID NO:2:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 100 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

```
Pro Gly Ala Arg Pro Cys Gly Leu Arg Glu Leu Glu Val Arg Val Ser
```

```
101        1               5                   10                  15
102
103        Glu Leu Gly Leu Gly Tyr Thr Ser Asp Glu Thr Val Leu Phe Arg Tyr
104                    20                  25                  30
105
106        Cys Ala Gly Ala Cys Glu Ala Ala Ile Arg Ile Tyr Asp Leu Gly Leu
107                35                  40                  45
108
109        Arg Arg Leu Arg Gln Arg Arg Arg Val Arg Arg Glu Arg Ala Arg Ala
110            50                  55                  60
111
112        His Pro Cys Cys Arg Pro Thr Ala Tyr Glu Asp Glu Val Ser Phe Leu
113        65                  70                  75                  80
114
115        Asp Val His Ser Arg Tyr His Thr Leu Gln Glu Leu Ser Ala Arg Glu
116                        85                  90                  95
117
118        Cys Ala Cys Val
119                    100
120
121    (2) INFORMATION FOR SEQ ID NO:3:
122
123         (i) SEQUENCE CHARACTERISTICS:
124              (A) LENGTH: 16 amino acids
125              (B) TYPE: amino acid
126              (C) STRANDEDNESS:
127              (D) TOPOLOGY: linear
128
129        (ii) MOLECULE TYPE: peptide
130
131
132       (ix) FEATURE:
133              (A) NAME/KEY: Modified-site
134              (B) LOCATION: 6
135              (D) OTHER INFORMATION: /note= "ANY AMINO ACID"
136
137
138        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:
139
140         Ser Gly Ala Arg Pro Xaa Gly Leu Arg Glu Leu Glu Val Ser Val Ser
141         1               5                   10                  15
142
143
144    (2) INFORMATION FOR SEQ ID NO:4:
145
146         (i) SEQUENCE CHARACTERISTICS:
147              (A) LENGTH: 10 amino acids
148              (B) TYPE: amino acid
149              (C) STRANDEDNESS:
150              (D) TOPOLOGY: linear
```

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151
152       (ii) MOLECULE TYPE: peptide
153
154
155       (ix) FEATURE:
156            (A) NAME/KEY: Modified-site
157            (B) LOCATION: 1
158            (D) OTHER INFORMATION: /note= "ANY AMINO ACID"
159
160       (ix) FEATURE:
161            (A) NAME/KEY: Modified-site
162            (B) LOCATION: 6
163            (D) OTHER INFORMATION: /note= "SERINE OR CYSTEINE"
164
165
166       (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:
167
168        Xaa Cys Ala Gly Ala Xaa Glu Ala Ala Val
169        1               5                   10
170
171   (2) INFORMATION FOR SEQ ID NO:5:
172
173        (i) SEQUENCE CHARACTERISTICS:
174            (A) LENGTH: 23 amino acids
175            (B) TYPE: amino acid
176            (C) STRANDEDNESS:
177            (D) TOPOLOGY: linear
178
179       (ii) MOLECULE TYPE: peptide
180
181
182       (ix) FEATURE:
183            (A) NAME/KEY: Modified-site
184            (B) LOCATION: 1
185            (D) OTHER INFORMATION: /note= "ANY AMINO ACID"
186
187       (ix) FEATURE:
188            (A) NAME/KEY: Modified-site
189            (B) LOCATION: 2
190            (D) OTHER INFORMATION: /note= "ANY AMINO ACID"
191
192       (ix) FEATURE:
193            (A) NAME/KEY: Modified-site
194            (B) LOCATION: 17
195            (D) OTHER INFORMATION: /note= "GLUTAMINE OR GLUTAMIC ACID"
196
197
198       (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:
199
200        Xaa Xaa Val Glu Ala Lys Pro Cys Cys Gly Pro Thr Ala Tyr Glu Asp
```

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201       1               5                   10                  15
202
203       Xaa Val Ser Phe Leu Ser Val
204                   20
205
206   (2) INFORMATION FOR SEQ ID NO:6:
207
208       (i) SEQUENCE CHARACTERISTICS:
209            (A) LENGTH: 10 amino acids
210            (B) TYPE: amino acid
211            (C) STRANDEDNESS:
212            (D) TOPOLOGY: linear
213
214      (ii) MOLECULE TYPE: peptide
215
216
217
218      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:
219
220       Tyr His Thr Leu Gln Glu Leu Ser Ala Arg
221       1               5                   10
222
223   (2) INFORMATION FOR SEQ ID NO:7:
224
225       (i) SEQUENCE CHARACTERISTICS:
226            (A) LENGTH: 197 amino acids
227            (B) TYPE: amino acid
228            (C) STRANDEDNESS:
229            (D) TOPOLOGY: linear
230
231      (ii) MOLECULE TYPE: protein
232
233
234
235      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:
236
237       Met Gln Arg Trp Lys Ala Ala Ala Leu Ala Ser Val Leu Cys Ser Ser
238       1               5                   10                  15
239
240       Val Leu Ser Ile Trp Met Cys Arg Glu Gly Leu Leu Leu Ser His Arg
241                   20                  25                  30
242
243       Leu Gly Pro Ala Leu Val Pro Leu His Arg Leu Pro Arg Thr Leu Asp
244               35                  40                  45
245
246       Ala Arg Ile Ala Arg Leu Ala Gln Tyr Arg Ala Leu Leu Gln Gly Ala
247           50                  55                  60
248
249       Pro Asp Ala Met Glu Leu Arg Glu Leu Thr Pro Trp Ala Gly Arg Pro
250       65                  70                  75                  80
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